

10/659066 Aeg 6/4/10

Please amend the paragraph beginning on page 72, line 1, as follows:

To examine the aliasing effect described above, and to determine what an appropriate number of buckets ~~110~~106 should be, FIG. 30 shows the sum of the differences in the bucket weights found between all sequential intervals of execution. The y-axis shows the sum total of differences for each program. This is calculated by summing the differences between the buckets ~~110~~106 captured for interval i and i-1 for each interval i in the program. The x-axis is the number of distinct buckets used. All of the results are compared to the ideal case of using an infinite number of buckets ~~110~~(or one for each separate basic block) to create the signature. On the program gcc, for example, the total sum of differences with 32 buckets was 72% of that captured with an infinite number of buckets. In general, 32 buckets has been found to be enough to distinguish between two phases.

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Please amend the paragraph beginning on page 83, line ~~7~~, as follows:

Just-in-time (JIT) systems are assisted, as efficient JIT systems can be built to guide when to spend time on optimizing code. By using a hardware-independent metric for the component such as the code executed, analysis may be performed in a very short amount of time, on the order of how long it takes to execute the program itself, using a very fast high level code profiler. ~~Reoptimization~~Reoptimization of a program can be expedited by determining when to perform the reoptimization.